COMMODORE 64K®
USER'S GROUP

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Editorial

The month has fairly flown by again, and it seems only like yesterday that I was posting the last issue.

The Machine Code Group has had their last session of the first group, and a new session starting from the beginning is starting at the August meeting. Anyone who has an urge to try their hand at machine code is urged to attend the first session, because I found that if you missed one, you were up against it for the remainder of the course. The original members of this group are reminded that attending the next sessions will increase their knowledge on this subject (speaking for me — I need it), and David will be posing some nice problems for us all to wrack our brains over.

The Waverley Group had a night with "Mr. Software"? A lot of new software was shown, and only brings my point of several months ago to the fore about the onslaught of new material appearing on the shelves of dealers.

The Doncaster Group, as reported in the last issue, started a new Chapter, and this was quite well attended by faces I hadn't seen before. Although those that attended were reluctant to take committee positions, I feel that this group has the potential to grow and be of a similar structure as the longer established groups.

The original Doncaster Group had their elections, and we have some 'new blood' on the committee, as three of the original six could not continue.

We then had an enlightening discussion by Stephen Clarke (of 'Tin Head' fame(*sorry, Steve*)), who programs the infamous computer to predict winners in the football against Lou Lou. Did you know that he has beaten Lou every year in the four years it has been running?

Then on to Prahran where we were to have a demo from Robert Reid from Ultraphase. Unfortunately, Robert is suffering from a hard to shake virus and was unable to attend. So as a fill in, John Goodwin posed a problem on the 'GET' statement. Now I thought that this subject could be covered in about 10 minutes, but we had to cut off the discussion after some 90 minutes, and we hadn't scratched the surface of this most powerful instruction.

As you will see from this issue, we have no sponsor, and this issue is being footed by myself (a situation which will not continue). Has anyone any leads in this matter. I would hate to think that this newsletter would fail to exist, as I feel that it is the binding force between the groups. I have several suggestions which I will bring up at the next Co-Ordinating committee meeting, and unless there is any violent objections, will have to be passed, or this publication will disappear into oblivion.

Having been appointed Librarian for several groups, I now have the rest of the Commodore Public Domain Software, and this will be made available to members when details have been sorted out. More on this later.

This month there is a Question Corner, and any member who is able to answer these queries is asked to contact me, and I will publish their answers in a forthcoming issue. The people who have asked the questions will be contacted with your reply, so they may have the 'fixes' but for the general readership the answers will be available in print. There is also an OOPS column where we admit our faults and hopefully this will appear very rarely.

Thank you to all contributors to this issue, and trust to hear from you with more tit-bits in the near future.

Frank Martin. EDITOR

Bastow Manor

For those who have played the disk-based version of 'Bastow Manor' probably know the anguish of retrieving a saved game, finding to your horror that someone else has played it since, and saved the game in a different spot, with different items being carried.

To restore harmony after such an event, I have added the following code so that each person who saves a game can have a personalized save file.

First for SAVING:—

alter line 781 to read:

```
781   PRINT "Your Initials please": INPUT RA$:
          Open 2,8,2,"@0:MANSAV" + RA$ + ",S,W"
```

then for LOADING , the following alterations/additions:

```
1001  PRINT "Yours Initials please": Input RA$
1002  Open 2,8,2,"0:MANSAV" + RA$ + ",S,R"
```

Your initials can be a string of up to ten characters. This minor fix should keep things peaceful at home. May you never get caught without a ladder by the dogs!

Next time I hope to have a fix that will allow you to turn off the dogs, if they are causing you too much trouble!

Russell Alphey

DISK DRIVE ROUNDUP

Paul Blair

More and more people have been contacting me, urging some national onslaught on Commodore about the Instant Misalignment Feature of the 1541 disk drive. While there could be a prima facie case to go in boots and all, it seemed more reasonable and worthwhile to do some digging around to see what has been going on in the Commodore camp. While I have no 'official' news, my 'Usually Reliable Sources' (to borrow a phrase from "60 Minutes") tell me that Commodore has been very busy indeed, not only locally, but across the world.

Given the virtual impossibility of trying to work out what has occurred with each and every drive that has been returned for repair, the approach has been to identify the serial number of each unit in for repair (hence establishing the date and location of manufacture). By sifting through the data, it seems that a pattern has been emerging. The pattern points to one particular period of time at one particular plant. That's not absolutely definitive, but inspection of some production units points to some physically minor but operationally significant differences. The effect of these differences is being studied now, but there is some optimism that the main problems have at last been isolated.

At this point, pause and have a brief spasm of sympathy for Commodore. Go on, it won't hurt. Try to imagine the problem confronting them if the fix has indeed been discovered. Obviously, any fix is going to be such that part of the mechanical section of the unhappy drives is going to be affected. If the fix is applied, the drive head will require re-alignment, and there does seem to be a genuine shortage of technical staff who can do that job proficiently. So the fix itself could take a wee while to do properly, and a degree of user patience is necessary.

Consider the overall communications and logistics problems. No matter how widely the news is spread, someone will somehow manage to miss out on the news, then feel resentful that they were not contacted directly by the Company. Then, of course, there will be the lurk-workers who decide to take advantage of the level of repair activity to slip their own drive in for a grease and oil change (whether it needs it or not) at company expense. This could dilute company good-will and delay genuine repairs unless people act responsibly.

It seems likely (according to my URS) that there will be some sort of fix-up campaign soon. How it will work, who will pay and to whom it will apply is not known to me, but common sense indicates that the present unhappy situation can't drag on much longer, and activity at Commodore suggests that they feel the same way.

While Commodore aren't talking openly about the problems yet, there are indications that they would like to wrap up the whole 1541 issue and get on with their jobs.

Hopefully, by useful and accurate communication with users, Commodore can lay a few shadows to rest, and set about making some friendships. It seems likely that User Groups could play a major role in the exercise, so keep tuned there.

How to Use the Commodore Key

The Commodore key is the one at the front left of the keyboard marked C=. When it is pressed, PEEK (653) = 2.

You can check the value of location 653 anytime in your program and branch when it equals two. Here are two examples:—

Example 1:

```
 10 PRINT "PRESS C= KEY TO GET HELP"
 20 FOR X = 1 TO 1000
 30 program
 40 IF PEEK(653) = 2 GOTO 100
 50 NEXT X
 60 GOTO 500
100 PRINT "HELP !"
500 END
```

Example 2:

```
 10 PRINT "PRESS C= KEY TO EXIT PROGRAM"
 20 PRINT " down PRESS SPACE BAR
           TO CONTINUE"
 30 GET A$ : IF PEEK(653) = 2 GOSUB 100
 40 IF A$ = "" GOTO 30
 50 continue with program
 60 END
100 exit routine
```

Note: Location 653 can have other values too.

PEEK(653) Value	Key(s) Pressed
1	SHIFT
2	C=
3	C= + SHIFT
4	CTRL

You can use these keys also. See example 3 below.

Example 3:

```
 10 PRINT "clear screen" :
    REM  DOODLE BY DAVID
 20 FOR J = 55296 TO 56295
    : POKE J,0 : NEXT
 30 X = 1924 : Y = 35
 40 POKE X,Y
 50 IF PEEK(653)=1 THEN X = X+1
    :REM  SHIFT KEY (RIGHT)
 60 IF PEEK(653)=2 THEN X = X-1
    :REM  C= KEY (LEFT)
 70 IF PEEK(653)=3 THEN X = X-40
    :REM  C= + SHIFT KEYS (UP)
 80 IF X < 1024 THEN X = X+1000
 90 IF X > 2023 THEN X = X-1000
100 FOR K = 1 TO 50 : NEXT
110 GOTO 40
```

David Mallen

LAST NEWSLETTER?

This will be the last newsletter you will receive unless you renew membership with your Group.

MACHINE CODE GROUP
A new session starting at an
elementary level will commence on
THURSDAY, 9th AUGUST, 1984
at BLACKBURN SCOUT HALL,
Koonung Road, Blackburn
at 7.30 p.m.
DON'T MISS OUT !!!

Home Budget Program

For those of you who (originally) bought your computer to help around the home finances, there is a new program just released by Acme Software which will fill that need. This program acts like a mini-spreadsheet and will keep your home running in a manner which you never thought possible: I will be receiving a review copy in the near future, and the report will appear in an issue in the not too distant future.

In the meantime, before your finances go completely astray, I suggest you call in at High-Technology in Richmond or Brighton for a demo.

WAVERLEY CHAPTER

"Mr. Software" attended the Waverley Group's June meeting and demonstrated his range of software. The "his" is actually a "her": Kerri Harrison runs the shop at 719 Warrigal Road, Chadstone. (Ph. 2777 7660) (*Show your membership card for 10% discount*).

Frank Martin acted as novice pilot for Flight Simulator II, but couldn't find the airport at New York! Other 3-D games were demonstrated, including Beach Head, and the audience was quite worn out by the time the new Chess game (Collossus Chess) was shown.

"Mr. Software" will also market any good programs you have written. How about a combined effort from the Machine Language Group?

David Mathie gave a tutorial section of the evening. It was amazing how many questions a talk on LOAD and SAVE generated.

The "ad hoc" Waverley Committee has run the Group for six months and elections will be held for a new committee at the July meeting. A software librarian is needed as Alan MacLean is going overseas for two months. Has anybody got two disc drives? Speaking of disc drives; MSD twin drives are being imported by a member of the Group who will demonstrate one at the August meeting.

OOPS

The article 'DOS WEDGE PATCH' appearing in the April issue, was wrongly attributed to Tim Strickland. My apologies to Ian Meggs who passed this program to me, but failed to put on who wrote it. Sorry Ian.

HELP HELP HELP

SIMON'S BASIC BUG

With my Simon's Basic cartridge plugged in I used these lines to save a data file on tape:

```
100 S$= ","
200 OPEN 1,1,2 : CMD1
300 PRINT "clear screen + 10 down"
400 CENTRE "SAVING DATA" : PRINT
500 FOR X = 1 TO 10
600 INPUT#1 A(X) S$ B(X) S$
700 NEXT X
800 CLOSE 1
```

I found that when I read the file I got a DATA FILE ERROR. However removing the print lines 300 and 400 solved the problem!

Is there a bug in Simon's Basic or have I got a cartridge/hardware fault? Does this cause a problem with saving to disc? Any clues? *David Mallen 561 2365*

* * *

I'm in the process of coding an on-screen clock. The hours are represented by horizontal bars of colour, and minutes are shown as vertical bars of colour. I want the seconds to be shown as black numbers overlaid on this graph, but as I'm having trouble working out how to do this module of the program, I would appreciate any ideas.

As an extension, I want the clock to "tick" at one second intervals. If possible I'd like the sound to change from a quiet or low frequency noise to a loud or high frequency noise during the course of the minute. I would appreciate some help on this also.

John Goodwin

Musical Note Values

As most of you probably know, the sound output from the C-64 is produced from a single integrated circuit called the 6581 Sound Interface Device or simply SID.

What you may not be aware of, however, is the fact that the output frequencies from SID are actually controlled by the main 6510 chip's master clock frequency. This varies between different models of the C-64 depending on whether it has been designed for the U.S. or 'rest of the world' markets.

The frequency produced by the SID chip when particular frequency numbers are POKEd to the frequency registers, for example, with voice one, S (54272) and S+1 (54273), will differ depending on whether the computer was designed for the U.S. (NTSC) or Australian/European (PAL) markets. The main clock frequencies of these machines are different; 1.02 MHz for NTSC and 0.98525 MHz for PAL.

The Commodore 64 Users guide provides a table of notes based on 1.00 MHz, presumably to be near enough to both types of machines, and the Commodore 64 Programmer's Reference Guide provides a table which, for some unknown reason, is almost based on the NTSC standard, but not quite.

Following is a table of notes correct for PAL standard and set for absolute pitch of A—4 = 440 Hz. (Checked with an A tuning fork). They should be used for all 'musical' sounds for Australian C-64's.

The program used to produce these tables will be published if enough interest is shown, so that you may create your own set of notes for any clock frequency, but, more importantly, for any pitch, for example A—4 = 436 Hz or whatever. The program will ONLY RUN on a Commodore printer.

Greg Perry, Brisbane. 1983

```
        COMMODORE 64   TABLE  :  2

     MUSICAL NOTE VALUES FOR PAL  AT 0.98525 MHZ STANDARD SOUND

NOTE  FREQ.    NUMBER  FH   FL  : NOTE   FREQ.    NUMBER  FH   FL
      HERTZ                              HERTZ
-------------------------------------------------------------------
C-0    16.35     278    1    22 : C-4    261.63    4455   17  103
C#-0   17.32     295    1    39 : C#-4   277.18    4720   18  112
D-0    18.35     313    1    57 : D-4    293.66    5001   19  137
D#-0   19.45     331    1    75 : D#-4   311.13    5298   20  178
E-0    20.60     351    1    95 : E-4    329.63    5613   21  237
F-0    21.83     372    1   116 : F-4    349.23    5947   23   59
F#-0   23.12     394    1   138 : F#-4   369.99    6300   24  156
G-0    24.50     417    1   161 : G-4    392.00    6675   26   19
G#-0   25.96     442    1   186 : G#-4   415.30    7072   27  160
A-0    27.50     468    1   212 : A-4    440.00    7492   29   68
A#-0   29.14     496    1   240 : A#-4   466.16    7938   31    2
B-0    30.87     526    2    14 : B-4    493.88    8410   32  218
C-1    32.70     557    2    45 : C-5    523.25    8910   34  206
C#-1   34.65     590    2    78 : C#-5   554.37    9440   36  224
D-1    36.71     625    2   113 : D-5    587.33   10001   39   17
D#-1   38.89     662    2   150 : D#-5   622.25   10596   41  100
E-1    41.20     702    2   190 : E-5    659.26   11226   43  218
F-1    43.65     743    2   231 : F-5    698.46   11894   46  118
F#-1   46.25     788    3    20 : F#-5   739.99   12601   49   57
G-1    49.00     834    3    66 : G-5    783.99   13350   52   38
G#-1   51.91     884    3   116 : G#-5   830.61   14144   55   64
A-1    55.00     937    3   169 : A-5    880.00   14985   58  137
A#-1   58.27     992    3   224 : A#-5   932.33   15876   62    4
B-1    61.74    1051    4    27 : B-5    987.77   16820   65  180
C-2    65.41    1114    4    90 : C-6   1046.50   17820   69  156
C#-2   69.30    1180    4   156 : C#-6  1108.73   18880   73  192
D-2    73.42    1250    4   226 : D-6   1174.66   20003   78   35
D#-2   77.78    1324    5    44 : D#-6  1244.51   21192   82  200
E-2    82.41    1403    5   123 : E-6   1318.51   22452   87  180
F-2    87.31    1487    5   207 : F-6   1396.91   23787   92  235
F#-2   92.50    1575    6    39 : F#-6  1479.98   25202   98  114
G-2    98.00    1669    6   133 : G-6   1567.98   26700  104   76
G#-2  103.83    1768    6   232 : G#-6  1661.22   28288  110  128
A-2   110.00    1873    7    81 : A-6   1760.00   29970  117   18
A#-2  116.54    1985    7   193 : A#-6  1864.65   31752  124    8
B-2   123.47    2103    8    55 : B-6   1975.53   33640  131  104
C-3   130.81    2228    8   180 : C-7   2093.00   35640  139   56
C#-3  138.59    2360    9    56 : C#-7  2217.46   37760  147  128
D-3   146.83    2500    9   196 : D-7   2349.32   40005  156   69
D#-3  155.56    2649   10    89 : D#-7  2489.02   42384  165  144
E-3   164.81    2807   10   247 : E-7   2637.02   44904  175  104
F-3   174.61    2973   11   157 : F-7   2793.83   47574  185  214
F#-3  185.00    3150   12    78 : F#-7  2959.96   50403  196  227
G-3   196.00    3338   13    10 : G-7   3135.96   53400  208  152
G#-3  207.65    3536   13   208 : G#-7  3322.44   56576  221    0
A-3   220.00    3746   14   162 : A-7   3520.00   59940  234   36
A#-3  233.08    3969   15   129 : A#-7  3729.31   63504  248   16
B-3   246.94    4205   16   109 : B-7   3951.07   67280  ***  ***
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